ARCHITECTURE FOR SIGNAL DISTRIBUTION
IN WIRELESS DATA NETWORKS

ABSTRACT OF THE DISCLOSURE

A simple and low cost architecture for coupling wireless metropolitan area

5   network and mobile broadband wireless network signals between geographically

distributed access points and centrally located internetworking devices. A cable access

point (CAP) is associated with each respective microcell. Each CAP includes a remote

bridge to convert such signals to a convenient transport format depending upon the

available cabling. For example, if the available cabling is a cable television (CATV)

10   plant, the transport signals are first converted to a T1/T3 format and up-converted to a

carrier frequency suitable for the CATV plant. Alternatively, the transport signals may

be converted to cable modem signals. If the available cabling is twisted pair telephone

type wiring, the remote bridge converts the transport signals to a suitable Digital

Subscriber Line (xDSL) format. The transport signals are collected at a central

15   distribution or head end access point (HAP). At this location, a remote bridge then

converts the signals from the up-converted T1 format or the xDSL format, back to the

Ethernet local area network format. These Ethernet signals are then suitable for

coupling to a local area network hub or other internetworking equipment such as

switches, bridges, routers, and gateways.